



**STATE OF TENNESSEE
TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
JOHNSON CITY ENVIRONMENTAL FIELD OFFICE
2305 SILVERDALE ROAD
JOHNSON CITY, TENNESSEE 37601-2162
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March 8, 2016

Mr. Ken Childress
Bays Mountain Park
853 Bays Mountain Park Road
Kingsport, Tennessee 37660

RE: Bays Mountain Park STP
NPDES Permit #TN0054941
Sullivan County

Dear Mr. Childress:

Personnel from the Tennessee Department of Environment and Conservation, Division of Water Resources conducted a Compliance Evaluation Inspection of Bays Mountain Park STP on March 1, 2016. During the inspection, compliance with individual NPDES permit # TN0054941 was evaluated. Mr. Bob Culler from Bays Mountain Park assisted in providing information for the inspection. I would like to thank Mr. Culler for his assistance during the inspection. Below is a summary of the inspection.

I. Permit

The permit became effective on July 1, 2013 and will expire on May 31, 2018. The original plans submitted show the design capacity to be 0.005 MGD. Bays Mountain STP utilizes a septic tank for solids removal. Filtration of the septic tank effluent is provided by the use of a sand filter, and disinfection is performed by HTH chlorination tablets.

II. Records and Reports

All records appear to be consistent with what was observed at the facility. The records appear neat, logical, and in order. It was observed that all records were on file From January 2013 to the

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present. All records are retained at least three years as required by Part I.B.5. of the permit. Records for January 2016 and October 2015 were reviewed for the inspection.

October 2015

- One violation of the daily limit for ammonia.
- 20 violations of the daily limit for dissolved oxygen.

January 2016

- One violation of the daily limit for CBOD.
- One violation of the monthly CBOD average.
- 16 violations of the daily limit for dissolved oxygen.

III. Facility Site Review, Self-Compliance Program, and Operations and Maintenance

The facilities appear to be well kept with good housekeeping. Field samples appear to be taken as required by the permit. Dissolved oxygen violations have been a problem in the past especially in the warm weather months. A field visit was conducted on December 10, 2015 in which it was discussed ways to decrease the number of violations. Bays Mountain Park has also had violations of chlorine and ammonia in the past. It is hoped that the addition of post aeration will lessen the number of ammonia, chlorine and dissolved oxygen violations.

- Post aeration is to be installed as soon as possible to increase the D.O. and to help with chlorine and ammonia removal. Frequent snow and rain recently has hindered the installation of the electrical service required for the aeration system.

During the inspection, division staff observed the certified operator as he collected and analyzed the required daily field parameters. The samples were collected after treatment and before discharge to the stream as required in Part I.B.1. of the permit.

The chlorine was read as 0.0 mg/l.

The pH was read to be 7.02.

The dissolved oxygen (D.O.) was read to be 4.79 mg/l.

Part III.A. of the permit states that the wastewater treatment facilities shall be operated under the supervision of a certified operator in accordance with the Water Environmental Health Act of 1984. The certified operator of this facility is Mr. Bob Culler. Bays Mountain Park is in compliance with this requirement.

IV. Effluent and Receiving Waters

The receiving waters are Dolan Branch at mile 1.5. The effluent appeared clear, and no objectionable color, odor, or foam was observed. A sign is installed in an area that is near the outfall and is observable from the stream as required by Part III.B. of the permit.

V. Flow Measurement

Part I.A. of the permit requires flow measurement to be performed and recorded five days per week. Flow measurement is accomplished with a "J" hook to measure the water level up stream of a V-notch weir. The procedures used for flow measurement were evaluated during the inspection. The procedures appeared adequate.

VI. Laboratory

All instantaneous tests are performed in the field, and monthly analytical tests are performed by the Kingsport Waste Water Treatment Facility. The samples collected appeared to be representative of the discharge, after treatment and before discharge to the stream. Recording of the sample results appears to be consistent with the permit. One time of analysis was omitted from an evaluated bench sheet. The permit states:

Part I.B.4. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

c. The dates and times the analyses were performed;

- The bench sheet for the January 6, 2016 CBOD sample did not note the time that the sample was taken off for analysis.

VII. Septage Management Practices

Part III.C. of the permit requires that all biosolids be properly managed. All biosolids are removed from the septic tanks and taken to the Kingsport Waste Water Treatment Plant for disposal. The last time the septic tank was pumped was August 2014.

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VIII. Additional Comments

Post aeration is to be installed as soon as practical to help increase the D.O. and to help with chlorine and ammonia removal. Bays Mountain STP planned to install post aeration before March 1, 2016. The weather has been so wet that electrical service could not be installed for the post aeration, so an extension has been requested. The post aeration must be installed before May 1, 2016. Within seven days after installation of post aeration, you must notify Robert Tipton with the Johnson City Environmental Field Office.

IX. Conclusion

NPDES permitting helps to protect fish, aquatic life, and stream quality downstream of the outfall for all Tennesseans. Thank you for your hard work and diligence in protecting water quality in Tennessee. If you have any questions concerning this correspondence, please contact me at (423) 854-5457.

Sincerely,



Robert Tipton
Environmental Scientist III
Johnson City Environmental Field Office
Division of Water Resources

RT/190116068

Cc: Bob Culler, Park Naturalist, Bays Mountain Park, 853 Bays Mountain Park Road
Kingsport, Tennessee 37660